Application No. 09/877,473
Response to Office Action of November 16, 2004

REMARKS

In the Office Action of November 16, 2004, claims 1-22 stand rejected. In this response claims 1, 5, 7, 8, 13, 14, 15, and 18 are amended. Reconsideration and allowance of all pending claims are respectfully requested in view of the following remarks. No new subject matter is being added by this response.

I.   REJECTIONS UNDER 35 U.S.C. § 112

Claims 15-18 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Particularly the Examiner argues that the term "complete set of packets" in claim 15 is a relative term. Claim 15 has been amended to recite "checking the hold queue to determine if all the packets expected for a given record has arrived." This amendment particularly points out the claimed invention. The rejection to claim 15, and its dependent claims 16-18, under 35 U.S.C. §112 should be withdrawn.

II.   REJECTION UNDER 35 U.S.C. §103

To establish a prima facie case of obviousness under 35 U.S.C. § 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based upon the Applicants' disclosure. A failure to meet any one of these criteria is a failure to establish a prima facie case of obviousness. MPEP §2143.

1. NARAD IN VIEW OF NORTEL.

Claims 1, 3, 5-8, 10, 12, 13, and 21-22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,157,955 to Narad (*Narad*) in view of "Using the Accelar 710 Service Switch" published by Nortel (*Nortel*). The Examiner contends that *Narad* discloses all the limitations of the present invention except the use of the SSL protocol. The Examiner

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further argues that *Nortel* discloses using the SSL protocol. Therefore, the Examiner concludes that it would be obvious to one of skill in the art to combine the teachings of *Narad* with the use of the SSL protocol, as taught in *Nortel*.

Narad discloses a general purpose packet processing platform that uses a policy engine to transform inbound packets to outbound packets. Based on applications running on a policy processor, an inbound packet can be transmitted, decrypted, classified or have some other action performed on it. In *Narad*, the packets are received from and released to Ethernet connections. (See Figure 4). Thus, *Narad* is drawn to a device that operates at the local area network level. *Nortel* discloses a hardware switch that can process SSL traffic. Applicant respectfully traverses the rejection, for the reasons set forth below.

a.   **THERE IS NO SUGGESTION OR MOTIVATION TO COMBINE THE CITED ART.**

First, the references teach away from the proposed combination. *Narad* explicitly teaches away from the use of switches to provide packet processing. (Column 3, lines 18-43). For example, *Narad* argues that switched-based packet processing is not cost effective, that switch-based processors lack processing power, and that porting applications to switches is difficult. The *Nortel* reference discloses a switch for use in SSL processing. Since *Nortel* teaches away from the use of switches to provide packet processing, one of skill in the art, when considering the teachings of *Narad*, would not consider *Nortel* since it deals with an approach that is criticized and disapproved by *Narad*. Since it is "improper to combine references where the references teach away from their combination", the combination of art is improper and the rejections based on this combination should be withdrawn. MPEP 2145

Second, *Narad* teaches away from the present invention. *Narad* is critical of the use of fixed function appliances that perform one specific application, such as an appliance that only performs cryptological functions (such as an SSL proxy according to the present invention). While recognizing the efficiency of this approach, *Narad* argues that there are drawbacks, such as cost and scalability, which make this an inferior approach. (Column 2, lines 50-67). The addition of *Nortel* does not remedy the shortcomings of *Narad*. Therefore, the *Narad/Nortel* combination teaches away from the approach of the present invention, i.e., providing an SSL

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proxy that performs one specific application. Therefore, the Examiner has failed to make a prima facie case of obviousness.

b.   THE NARAD/NORTEL COMBINATION FAILS TO TEACH OR SUGGEST ALL OF THE CLAIM LIMITATIONS.

Additionally, the proposed *Narad/Nortel* combination fails to disclose, teach, or suggest "the SSL proxy operable to buffer the packets until a predetermined number of packets greater than one packet are received." The Examiner claims that *Narad* discloses buffering the packets by using a ring buffer. However, in *Narad* "a packet arrives into a buffer, gets processed, and then gets transmitted out the other port or gets dropped." (Column 30, lines 42-44). Further, *Narad* states that the receive buffer "is a 2KB structure which contains an Ethernet packet and information about that packet." (Column 19, lines 63-65). Thus, the buffer of *Narad* holds but one packet. The addition of *Nortel* fails to cure the shortcomings of *Narad*. Therefore, the proposed *Narad/Nortel* fails to teach all of the limitations of claim 1.

Considering amended claim 5, the *Narad/Nortel* combination fails to disclose, teach, or suggest that "the packets are sent by a client computer running a web browser and received by a server computer running a web server." The Examiner indicates this limitation can be found at column 6, lines 42-47, column 113, lines 41-55 and Figure 1. However, column 6, lines 42-47 merely state that the invention of *Narad* receives a packet stream and transforms an inbound traffic scheme to an outbound traffic scheme. This section does not say where the packet came from or where it was being sent. Indeed, the packet could have been sent between two computers operating in a peer-to-peer format. This section certainly does not disclose a web browser or web server. Column 113, lines 42-47 does discuss client and server, but says those terms are only loosely defined. Additionally, this section certainly does not disclose the use of a web browser or web server. Figure 1 does not show a client or server and certainly does not disclose the use of a web browser or web server. At most, Figure 1 shows packets are received, operated on and then sent out. The addition of *Nortel* fails to overcome the shortcomings of *Narad*. Therefore, the proposed *Narad/Nortel* combination fails to disclose teach or suggest all the limitations of claim 5.

Considering claim 7, the *Narad/Nortel* combination fails to disclose, teach, or suggest that the proxy "performs encryption and decryption on packets using a single end-to-end TCP

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connection between a client computer and a server and the source and destination address of the packets are unaltered", as amended. *Narad* discloses a special syntax designed to provide network address translation (changing the source and/or destination address of a packet). (See Column 15, lines 7-24). For example, the TCPSDNNat Class can create TCP NAT objects that rewrite the addresses in the IP header. (Column 125, lines 50-67). Not only does *Narad* provide for rewriting addresses at the IP header level, but *Narad* also encapsulates packets, which forces changes in the source and destination address of the packet. As recited in *Narad*, "upon receiving a packet the RX MAC 220 or 228 places that packet at an offset." (Column 20, lines 25-28 and Figure 7). Offsetting the packet offsets the header, which is an alteration to the source and destination address. Therefore, for at least this reason, claim 7 is in condition for allowance.

Claims 3 and 5-7 depend from claim 1. Claim 1 is in condition for allowance. Therefore, for at least this reason, claims 3 and 5-7 are in condition for allowance.

Independent claim 8 stands rejected based on the rejection of claim 1. Claim 8, as amended, recites in part, "a client computer running a web browser computer operable to initiate an SSL session" and "a server computer running a web server operable to support communications with the client computer." As discussed in conjunction with claim 5, the Narad/Nortel combination does not disclose this limitation. For at least this reason, claim 8 is in condition for allowance.

Claims 10, 12 and 13 depend from allowable claim 8. Claim 8 is in condition for allowance. For at least these reasons claims 10, 12 and 13 are in condition for allowance. Additionally, claim 13, as amended, is allowable for the reasons discussed in conjunction with claim 7.

Considering independent claim 21, claim 21 includes the limitation that the encrypted packets are sent "to the client computer without altering the destination or source address of the packets." As discussed in conjunction with claim 7, this limitation is not taught, disclosed or suggested by the *Narad/Nortel* combination.

Claim 22 depends from claim 21. Claim 21 is in condition for allowance. Therefore, claim 22 is in condition for allowance.

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2. NARAD AND NORTEL IN VIEW OF NETSCAPE.

Claims 2 and 9 stand rejected as unpatentable over *Narad* and *Nortel* and further in view of *Netscape*. Claim 2 depends from claim 1 and claim 9 depends from claim 8. Claims 1 and 8 are in condition for allowance; therefore, claims 2 and 9 are in condition for allowance.

3. NARAD AND NORTEL IN VIEW OF BAKHTIARI.

Claims 4 and 11 stand rejected as unpatentable over *Narad* and *Nortel* and further in view of *Bakhtiari*. Claim 4 depends from claim 1 and claim 11 depends from claim 8. Claims 1 and 8 are in condition for allowance; therefore, claims 4 and 11 are in condition for allowance.

4. NARAD AND NORTEL IN VIEW OF CACHEFLOW.

Claims 14-18 stand rejected under *Narad* and *Nortel* and further in view of *Cacheflow*. Applicant respectfully traverses these rejections.

Claim 14 includes the limitation that "SSL proxy buffers the packets until a predetermined number of packets arrive, then decrypts packets, and forwards the decrypted packets to the server." The Examiner indicates that *Cacheflow* discloses this limitation. The *Cacheflow* references, recites, in part, that "when the web server receives the data, it then decrypts the received data per the negotiated parameter. It then applies caching rules to the response." It is unclear if the data referred to is a single packet or a number of packets of data. What is clear, however, is that in *Cacheflow* the result is cached or saved. In claim 14 the decrypted packets are forwarded to the server.

Additionally, *Narad* uses a system of buffering one packet to move the packets around from the gathering of the packets, to the classification of the packets, and to an application. As discussed in conjunction with claim 1, in *Narad* "a packet arrives into a buffer, gets processed, and then gets transmitted out the other port or gets dropped." (Column 30, lines 42-44). Further, *Narad* states that the receive buffer "is a 2KB structure which contains an Ethernet packet and information about that packet." (Column 19, lines 63-65). Thus, the buffer of *Narad* holds but one packet. To adopt the buffering of a predetermined amount would alter the way that *Narad*

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works. Since the proposed modification would render *Narad* unsatisfactory for its intended purpose, there is no suggestion or motivation to make the proposed modification. (See *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). Thus, this rejection should be withdrawn.

Considering independent claim 15, claim 15, as amended, recites, in part, "checking the hold queue to determine if all packets expected for a given record have arrived; decrypting the encrypted portion of each packet once all packets expected for a given record have arrived; and outputting the decrypted packets to a server computer." Claim 15 stands rejected for the same reason as claim 14. Therefore, for the reasons discussed in conjunction with claim 14, claim 15 is in condition for allowance.

Considering claims 16-20, claims 16-20 depend from claim 15. Claim 15 is allowable. Therefore, for at least this reason, claims 16-20 are in condition for allowance.

Additionally, claim 18 further defines the operation of the hold queue of claim 15. Since the *Narad/Nortel/Cacheflow* combination failed to disclose a hold queue, claim 18 is in condition for allowance.

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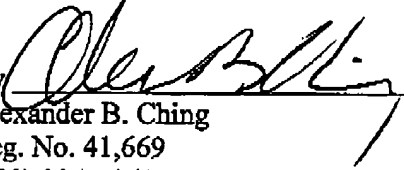
III.   CONCLUSION

For the foregoing reasons, the present application is believed to be in condition for allowance and favorable action is respectfully requested. The Examiner is invited to telephone the undersigned at the telephone number listed below if it would in any way advance prosecution of this case.

While no other fees are believed due, the applicant hereby requests that any other required fee to maintain pendency of this case, except for the Issue Fee, be charged to Deposit Account 50-2091.

Respectfully submitted,
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